UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/506,502	02/17/2000	Albert Ren-Rui Wang	83818/0261848	6419

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EXAMINER
DO, THUAN V

ART UNIT	PAPER NUMBER
2825	

DATE MAILED: 07/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/506,502	WANG ET AL.
	Examiner	Art Unit	
	Thuan Do	2825	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _26 May 2004_.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-6 and 8-64_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-6 and 8-64_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _17 February 2000_ is/are: a)☐ accepted or b)☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _11/17/03_.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   This non-final office action is responsive to amendment entered on 05/26/04. Claims 1-6 and 8-64 are pending in this office action. Claim 7 is canceled.

Response to Arguments

Applicant's arguments have been considered and the new 120(e) rejection is introduced using the prior art of Laurenti 6,658,578 provided in last time in the following section.

Drawings

A formal drawing set is requested in the next response.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> (e) the invention was described in-
> (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or
> (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

2.   Claims 1-6 and 8-64 are rejected under 35 U.S.C. 102(e) as being unpatentable over Laurenti et al., Pat. No. 6,658,578.

Claim 1: Laurenti teaches a system comprising:

hardware generation means for, based on a configuration specification including a predetermined portion and a user-defined portion, generating a description of a hardware implementation of the processor, the predetermined portion specifying a configuration of a core register, and the user defined portion specifying whether to include a user defined register file in the processor in addition to the core register file

(col. 8, lines 1-13 for hardware implementing processor and col. 35, lines 44-57 for configuration of core register file or register file of data operand and extension of sign data operand or addition to the core register file. This addition can be seen in col. 16, lines 63-66); and

software generation means for, based on the configuration specification, generating software development tools specific to the hardware implementation (col. 14, lines 12-22);

wherein the hardware generation means includes register generation means for, based on the user-defined portion of the configuration specification, generating a description of the user-defined register file separate from and in addition toa description of the core register file in the description of the hardware implementation of the processor (col. 16, lines 63-66 for addition to the core register file of data representation in a register and col. 44, lines 46-56 for separating operation of register function); and

the software generation means is for, based on the user-defined portion, including software related to the user-defined processor register file in the software development tools (col. 14, lines 12-22).

Claim 39: This claim teaches similar features of claim 1 and rejected in similar manner except the hardware generation means with pipeline stalling logic and rescheduling logic (col. 6, lines 53-56 and col. 33, lines 46-48).

Claim 48: This claim teaches similar features of claim 1 and rejected in similar manner except a processor instruction raises the exception (col. 35, lines 44-57).

Claim 49: This claim teaches similar features of claim 1 and rejected in similar manner except cosimulation means (col. 161, lines 26-34 for cosimulation and col. 8, lines 1-14 for extensible / variable instruction processor).

Claims 2,4,5, : The features with register files (col. 9, lines 4-20,).

Claims 3,6,8,9,12,13,14,15,16,17,18 : The features with hardware generation means (col. 8, lines 1-13 for hardware implementing processor, col. 16, lines 33-37 for ports, cost (col. 8, lines 15-28),col. 33, lines 46-48 for pypeline, col. 4, lines 58-60 using bypass logic, col. 34, lines 47-57 generating interlock signal, col. 33, lines 46-48 based on scheduling information, col. 35, lines 44-57 operand configuration instruction).

Claims 6, 10,11,19,20,21,22,23,29,30,31,32 : The features with: ports (col. 16, lines 33-37), address logic (col. 1, lines 50-67), alignment logic (col. 10, lines 30-

45),conditional write (col. 4, lines 30-33), storage (col. 33, lines 55-60), specification
and support (col. 33, lines 55-60),

Claims 24,25,26,27,28,33-38 : The features with software generation means:
register files (col. 9, lines 4-20, diagnostic test (col. 8, lines 15-30), semantic
implementation (col. 27, lines 8-10), test instruction (col. 8, lines 15-30), sampling
operands (col. 35, lines 44-57), state (col. 33, lines 55-60), compiler (col. 2, lines 1-10),

Claims 40-44,46,47,50-64: These claims teach similar features to the claims 1-39
and rejected in similar manners.

CONTACT INFORMATION

Any inquiry concerning this communication or earlier communications from the
examiner should be directed to Thuan Do whose telephone number is 571-272-1891.
The examiner can normally be reached on Monday-Friday 8:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's
supervisor, Matthew S. Smith can be reached on 571-272-1907. The fax phone
numbers for the organization where this application or proceeding is assigned are 703
305-3431 for regular communications and 703-305-3431 for After Final
communications.

Any inquiry of a general nature or relating to the status of this application or
proceeding should be directed to the receptionist whose telephone number is 703-308-
0596.
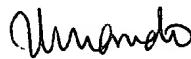
Thuan Do
Patent examiner
7/16/04